

Design of Battery Management System for E- Bikes

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Abstract: Battery management systems (BMS) is used in electric vehicle to monitor and control the charging and discharging of rechargeable batteries which makes the operation more economical. Battery management system keeps the battery safe, reliable and increases the senility without entering into damaging state. In order to maintain the state of the battery, voltage, current, ambient temperature different monitoring techniques are used. For monitoring purpose different analog/digital sensors with microcontrollers are used. This Project addresses state of charge, state of health, and state of life and also maximum capacity of a battery. By reviewing all these methodologies future challenges and possible solutions can be obtained.

Keywords: ArduinoUNO, Lithium ion Cells-12 (4Volts/3Ah), MCP2515_CAN (TX/RX), K Type Thermocouple/LM35 IC, Current Shunt – 20A, Relay – 5, PCB

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